

Appl. No. 10/645,306
Amdt. dated November 2, 2005
Reply to Office action of August 4, 2005

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) A method of patterning a substrate with a template having a mold, said method comprising:
positioning conformable material between said substrate and said mold;
filling a volume defined between said mold and said substrate with said conformable material through capillary action between said conformable material and one of said mold and said substrate; ~~and~~
controlling movement between said substrate and said mold to minimize tensile forces, associated with said capillary action, upon said mold; and
solidifying said conformable material.

2. (Original) The method as recited in claim 1 wherein positioning said conformable material further includes disposing said conformable material on said mold and placing said mold in superimposition with said substrate.

3. (Currently Amended) The method as recited in claim 1 wherein positioning said conformable material further includes disposing said conformable material on said ~~the mold~~ substrate and placing said mold in superimposition with said substrate.

4. (Original) The method as recited in claim 1 wherein filling said volume further includes filling said volume by capillary action of said conformable material with both said mold and said substrate.

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5. (Original) The method as recited in claim 1 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material.

6. (Original) he method as recited in claim 1 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material while minimizing variances in said distance to attenuate creation of compressive forces between said mold and said conformable material.

7. (Currently Amended) The method as recited in claim 1 wherein forming positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material.

8. (Currently Amended) The method as recited in claim 1 wherein forming positioning said conformable material further includes depositing said conformable material on a sub-portion of ~~the said~~ a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

9. (Original) The method as recited in claim 1 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said

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substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of said first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

10. (Original) The method as recited in claim 1 wherein solidifying said conformable material further includes exposing said conformable material to actinic radiation.

11. (Original) The method as recited in claim 10 wherein said actinic radiation consists of ultraviolet radiation.

12. (Currently Amended) The method as recited in claim 1 wherein said template further includes a plurality of ~~spaced-part~~ spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with ~~the~~ remaining molds of said plurality of spaced-apart molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

13. (Original) The method as recited in claim 12 wherein said first subset consists of one mold.

14. (Currently Amended) A method of patterning a substrate with a template having a mold, said method comprising:
positioning conformable material between said substrate and said mold;

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establishing a distance between said mold and said substrate to facilitate filling a volume, defined between said mold and said substrate, with said conformable material through capillary action between said conformable material and one of said mold and said substrate; ~~and~~

controlling said distance to minimize tensile forces, associated with said capillary action, upon said mold, such that a thickness uniformity of said conformable material is maximized;
and

solidifying said conformable material.

15. (Original) The method as recited in claim 14 wherein establishing said distance further includes minimizing variations in said distance to be within a predetermined range of variations.

16. (Original) The method as recited in claim 14 wherein solidifying said conformable material further includes exposing said conformable material to actinic radiation.

17. (Original) The method as recited in claim 14 wherein establishing said distance further includes maintaining said distance to be within a predetermined range to attenuate creation of compressive forces between said mold and said conformable material.

18. (Currently Amended) The method as recited in claim 14 wherein ~~forming~~ positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material.

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19. (Currently Amended) The method as recited in claim ~~11~~ 14 wherein ~~forming~~ positioning said conformable material further includes depositing said conformable material on a sub-portion of ~~the said~~ a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

20. (Original) The method as recited in claim 14 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of said first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

21. (Currently Amended) The method as recited in claim 14 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with ~~the~~ remaining molds of said plurality of spaced-apart molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

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22. (Currently Amended) A method of patterning a substrate with a template, said method comprising:

forming conformable material on said substrate;
placing said template in superimposition with said conformable material, with said template including a mold facing said conformable material;

moving a sub-portion of said conformable material, through capillary action between said conformable material and one of said mold and said substrate, in a direction away from said substrate to wet a region of said mold and conform to a shape thereof, defining a complimentary shape; ~~and~~

controlling movement between said substrate and said mold to minimize tensile forces, associated with said capillary action, upon said mold; and

solidifying said conformable material.

23. (Currently Amended) The method as recited in claim 22 wherein filling moving said sub-portion further includes filling ~~said~~ a volume defined between said mold and said substrate by capillary action of said conformable material with both said mold and said substrate.

24. (Original) The method as recited in claim 23 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material.

25. (Original) The method as recited in claim 24 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material

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while minimizing variances in said distance to attenuate creation of compressive forces between said mold and said conformable material.

26. (Currently Amended) The method as recited in claim 25 wherein forming said conformable material further includes depositing said conformable material on a sub-portion of said region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

27. (Original) The method as recited in claim 26 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

28. (Currently Amended) The method as recited in claim 26 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with ~~the~~ remaining molds of said plurality of spaced-part molds being disposed opposite to a second region of said substrate, with said conformable material

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being disposed in said first region and absent from said second region.

29. (Original) The method as recited in claim 28 wherein said first subset consists of one mold.

30. (Original) The method as recited in claim 28 wherein solidifying further includes exposing said conformable material to actinic radiation.

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